REMARKS

In response to the Office Action dated 29 August 2001, claim 8 has been canceled without prejudice to the subject matter thereof and claims 1-7 have been amended. No new matter has been added. Claims 1-7 are pending in this application. Reexamination and reconsideration of the claims as requested is respectfully requested.

In paragraph 2 on page 2 of the Office Action, claim 8 is rejected under 35 U.S.C. § 112 second paragraph for being indefinite in that it fails to point out what is included or excluded by the claim language.

The rejection is considered moot in view of the cancellation of claim 8.

In paragraph 4 on page 2 of the Office Action, claims 1-4 and 8 are rejected under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent 6,018,521 issued to Timbs et al (hereinafter Timbs).

The Applicants respectfully traverse this rejection for the following reasons.

Applicants' claim 1 sets forth, among other features, a broadband cellular network device. The broadband cellular network device includes a base station control unit (e.g. 1) adapted to control the distribution of asynchronous transfer mode cellular traffic consisting of asynchronous transfer mode cells. Separate from the base station control unit, the broadband cellular network device further includes an asynchronous transfer mode controller (e.g. 2) connected to and being controlled by said base station control unit. Separate from the asynchronous transfer mode controller, the broadband cellular network device further includes an asynchronous transfer mode switching means (e.g. 3) connected to and being controlled by said

asynchronous transfer mode controller and adapted to switch asynchronous transfer mode cellular traffic.

In contrast to Applicants' invention, Timbs teaches a path connection manager 105, which is internal to base station controller 220, to interact with ATM switch 251, as described in column 8, lines 45-49. Furthermore, ATM Routing Control (ARC) Protocol is used for the control of ATM switch 251.

Applicants' invention is different from Timbs because Applicants' ATM switch controller (e.g. 2) is separate and distinct from BSC unit (e.g. 1), whereas the ATM controller of Timbs (path connection manager 105) is clearly contained within BSC 220 of Timbs. That is to say, that while control of ATM switch 251 requires ARC Protocol to be generated from within BSC 220 of Timbs, Applicants' invention merely requires BSC (e.g. 1) to generate common cellular network signalling to ATM controller (e.g. 2) in order to control the traffic channel allocations of ATM switch (e.g. 3). Accordingly, one advantage of Applicants' invention that is not found in Timbs, is that BSC (e.g. 1) of the present invention can be combined with ATM switches without the need for expensive ATM BSCs because ATM controller (e.g. 2), as set forth in claim 1, provides the necessary interface towards BSC (e.g. 1), to allow BSC (e.g. 1) to manipulate ATM switch (e.g. 3) without having to understand specific ATM commands. Applicants' claim 1, therefore, patentably distinguishes over Timbs and is in condition for allowance.

Dependent claims 2-4, which are dependent from independent claim 1, are also rejected under 35 U.S.C. §102(e) as being anticipated by Timbs. While Applicants do not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the remarks made in connection with

independent claim 1. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from Timbs. Therefore, dependent claims 2-4 are also in condition for allowance.

In paragraph 6 on page 3 of the Office Action, claims 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Timbs, in view of U.S. Patent 5,946,634 issued to Korpela (5946634).

The Applicants respectfully traverse this rejection for the following reasons.

According to the Office Action, Timbs fails to disclose a cellular network related upper layer and an ATM related lower layer, but Korpela discloses a mobile communications system including both the upper and lower layers. The combination of Timbs with Korpela, however, fails to disclose an ATM switch controller, which is separate and distinct from a BSC unit. Accordingly, Applicants' invention is patentable over Timbs in combination with Korpela for the same reasons given above for independent claim 1. Applicants' claims 5 and 6 are, therefore, in condition for allowance.

In paragraph 7 on page 4 of the Office Action, claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Timbs, in view of U.S. Patent 5,963,555 issued to Takase et al (hereinafter Takase).

The Applicants respectfully traverse this rejection for the following reasons.

According to the Office Action, Timbs fails to disclose adapting a General Switch Management Protocol (GSMP), but Takase discloses the use of GSMP. The combination of Timbs with Takase, however, fails to disclose an ATM switch controller,

which is separate and distinct from a BSC unit. Accordingly, Applicants' invention is patentable over Timbs in combination with Takase for the same reasons given above for independent claim 1. Applicants' claim 7 is, therefore, in condition for allowance.

CONCLUSION

In view of the reasons provided above, it is believed that all pending claims are in condition for allowance. Applicants respectfully request favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact agent for Applicants, Michael T. Wallace at 952-933-7218.

Respectfully submitted,

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Appendix A
Marked Up Version of the Entire Claim Set

1. (Amended) A broadband cellular network device, comprising

a base station control unit [(1)]adapted to control the distribution of asynchronous transfer mode cellular traffic consisting of asynchronous transfer mode cells,

an asynchronous transfer mode controller [(2)]connected to and being controlled by said base station control unit [(1)], and

an asynchronous transfer mode switching means [(3)]connected to and being controlled by said asynchronous transfer mode controller [(2)]and adapted to switch asynchronous transfer mode cellular traffic.

2. (Amended) A device according to claim 1, wherein said base station control unit [(1)] provides either of a software, hardware or mixed software/hardware implementation of base station controller functions and comprises an asynchronous transfer mode controller instruction means adapted to instruct the asynchronous transfer mode controller [(1)].

3. (Amended) A device according to claim 1, wherein the asynchronous transfer mode controller [(2)]is arranged to provide an interface for converting commands issued by the base station controller unit [(1)]into commands causing switching actions of the asynchronous transfer mode switching means [(3)].

4. (Amended) A device according to claim 3, wherein the asynchronous transfer mode controller [(2)]is adapted to employ asynchronous transfer mode based signalling and to provide control commands for controlling connecting hardware of the asynchronous transfer mode switching means [(3)].

5. (Twice Amended) Device according to claim 3, wherein the asynchronous transfer mode controller [(2)]is arranged to comprise at least two functional layers, one of the functional layers being a cellular network related upper layer [(2a)]adapted to perform cellular network related functions, and one of the functional layers being an asynchronous transfer mode related lower layer [(2b)] adapted to perform asynchronous transfer mode switching means related functions.

6. (Amended) Device according to claim 5, wherein the lower functional layer [(2b)]of the asynchronous transfer mode controller [(2)]is arranged to control the switching hardware of the asynchronous transfer mode switching means [(3)].

7. (Amended) Device according to claim 3, wherein the asynchronous transfer mode controller [(2)]is adapted to be a General Switch Management Protocol (GSMP) controller, and wherein the asynchronous transfer mode switching means [(3)] is adapted to support said General Switch Management Protocol.